

Serial No.: 10/766,317
Filing Date: January 27, 2004

Amendments to the Claims:

The listing of claims will replace all prior versions, and listings, of claims in the applications.

Listing of Claims:

1. (Original) A composition for treating squamous cell carcinoma (SCC) comprising an antibody that specifically binds a migration facilitating protein (MFP) comprising a laminin 5 alpha 3 G4 and/or 5 domain or subdomain thereof, and a pharmaceutically acceptable carrier.
2. (Original) A composition according to Claim 1, wherein said antibody binds to a MFP comprising a laminin 5 alpha 3 G4 domain.
3. (Original) A composition according to Claim 2, wherein said antibody does not bind to an epitope for a BMP-1 cleavage site within said laminin 5 alpha 3 G4 domain or subdomain thereof.
4. (Original) A composition according to Claim 1, wherein said antibody binds to a MFP comprising a laminin 5 alpha 3 G5 domain.
5. (Original) A composition according to Claim 1, wherein said antibody is a polyclonal antibody.
6. (Original) A composition according to Claim 1, wherein said antibody is a monoclonal antibody.
7. (Original) A composition according to Claim 1, wherein said SCC is selected from the group consisting of skin cancer, lung cancer, head cancer, gastric cancer, colorectal, throat cancer, cancer of the urinary tract, cancer of the reproductive tract, esophageal cancer, and bronchiogenic carcinoma.
8. (Currently Amended) A composition according to Claim 1, wherein said MFP has a sequence comprising the amino acid sequence of ~~SEQ ID. No.: 13~~SEQ ID NO:13.
9. (Currently Amended) A composition according to Claim 1, wherein said MFP has a sequence comprising the amino acid sequence of ~~SEQ ID. No.: 15~~SEQ ID NO:15.
10. (Currently Amended) A composition according to Claim 1, wherein said MFP has a sequence comprising the amino acid sequence of ~~SEQ ID. No.: 17~~SEQ ID NO:17.

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11. (Currently Amended) A composition according to Claim 1, wherein said MFP has a sequence comprising the amino acid sequence of ~~SEQ ID. No.: 19~~SEQ ID NO:19.
12. (Currently Amended) A composition according to Claim 1, wherein said MFP has a sequence comprising the amino acid sequence of ~~SEQ ID. No.: 21~~SEQ ID NO:21.
13. (Currently Amended) A composition according to Claim 1, wherein said MFP has a sequence comprising the amino acid sequence of ~~SEQ ID. No.: 24~~SEQ ID NO:23.
14. (Original) A method of treating squamous cell carcinoma (SCC) in a patient comprising administering a therapeutically effective amount of one or more antibodies in a pharmaceutically acceptable carrier, wherein one or more of said antibodies is capable of specifically binding a MFP of a laminin 5 G4 and/or G5 domain or subdomain thereof, and inhibiting SCC tumorigenesis.
15. (Currently Amended) A method according to Claim 14, wherein said antibody binds to a MFP having a sequence comprising the amino acid sequence of ~~SEQ ID. No.: 13~~SEQ ID NO:13.
16. (Currently Amended) A method according to Claim 14, wherein said antibody binds to a MFP having a sequence comprising the amino acid sequence of ~~SEQ ID. No.: 15~~SEQ ID NO:15.
17. (Currently Amended) A method according to Claim 14, wherein said antibody binds to a MFP having a sequence comprising the amino acid sequence of ~~SEQ ID. No.: 17~~SEQ ID NO:17.
18. (Currently Amended) A method according to Claim 14, wherein said antibody binds to a MFP comprising the amino acid sequence of ~~SEQ ID. No.: 19~~SEQ ID NO:19.
19. (Currently Amended) A method according to Claim 14, wherein said antibody binds to a MFP comprising the amino acid sequence of ~~SEQ ID. No.: 21~~SEQ ID NO:21.
20. (Currently Amended) A method according to Claim 14, wherein said antibody binds to a MFP comprising the amino acid sequence of ~~SEQ ID. No.: 24~~SEQ ID NO:23.
21. (Original) A method according to Claim 14, wherein said antibody is a polyclonal antibody.
22. (Original) A method according to Claim 14, wherein said antibody is a monoclonal antibody.

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23. (Original) A method according to Claim 14, wherein said SCC is selected from the group consisting of skin cancer, lung cancer, head cancer, gastric cancer, colorectal, throat cancer, cancer of the urinary tract, cancer of the reproductive tract, esophageal cancer, and bronchiogenic carcinoma.

24. (Original) A method for diagnosing the presence of SCC comprising the steps of:

- a) contacting a sample suspected of comprising neoplastic epithelial cells with an antibody capable of specifically binding a MFP of a laminin 5 G4-5 domain or subdomain thereof,
- b) detecting the binding of said antibody to said MFP; and,
- c) diagnosing therefrom the presence or absence of SCC in said sample.

25. (Currently Amended) A method according to Claim 24, wherein said antibody binds to a MFP having a sequence comprising the amino acid sequence of ~~SEQ ID. No.: 13~~SEQ ID NO:13.

26. (Currently Amended) A method according to Claim 24, wherein said antibody binds to a MFP having a sequence comprising the amino acid sequence of ~~SEQ ID. No.: 15~~SEQ ID NO:15.

27. (Currently Amended) A method according to Claim 24, wherein said antibody binds to a MFP having a sequence comprising the amino acid sequence of ~~SEQ ID. No.: 17~~SEQ ID NO:17.

28. (Currently Amended) A method according to Claim 24, wherein said antibody binds to a MFP having a sequence comprising the amino acid sequence of ~~SEQ ID. No.: 19~~SEQ ID NO:19.

29. (Currently Amended) A method according to Claim 24, wherein said antibody binds to a MFP having a sequence comprising the amino acid sequence of ~~SEQ ID. No.: 21~~SEQ ID NO:21.

30. (Currently Amended) A method according to Claim 24, wherein said antibody binds to a MFP having a sequence comprising the amino acid sequence of ~~SEQ ID. No.: 24~~SEQ ID NO:23.

31. (Original) A method according to Claim 24, wherein said antibody further comprises a detectable label.

32. (Original) The method according to Claim 24, wherein said epithelial cells are selected from the group consisting of squamous cells, keratinocytes, mucosal epithelial cells, gastrointestinal epithelial cells, corneal epithelia of the eye, and epithelial cells of the urinary and reproductive tract.

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33. (Original) The method according to Claim 24, wherein said sample is a tissue sample.
34. (Original) The method according to Claim 24, wherein said sample is a urine sample.
35. (Original) The method according to Claim 24, wherein said sample is a blood sample.
36. (Original) A method of identifying a candidate binding agent capable of binding a MFP of a laminin 5 alpha 3 G4 and/or G5 domain or subdomain thereof comprising the steps of:
 - a) contacting a sample comprising a MFP of a laminin 5 alpha 3 G4-G5 domain or subdomain with a composition comprising one or more candidate binding agent under conditions effective to permit binding between one or more of said candidate binding agent and said MFP; and
 - b) detecting the binding of said candidate binding agent to said MFP.
37. (Original) A method according to Claim 36, wherein said candidate binding agent is selected from the group consisting of antibodies and fragments thereof, small molecules, polypeptides, and aptamers.
38. (Original) A method of screening for candidate agents that inhibit SCC tumorigenesis comprising the steps of:
 - a) subcutaneously injecting nude mice with a suspension comprising:
 - i) Ras/IKB transformed epithelial cells;
 - ii) a migration facilitating protein (MFP) of a laminin G4 and/or G5 domain or subdomain;
 - iii) one or more candidate agents; and
 - b) determining the presence or absence of one or more tumors.
39. (Original) A method according to Claim 38, wherein said candidate agent is selected from the group consisting of antibodies and fragments thereof, small molecules, polypeptides, and aptamers.
40. (Original) A method according to Claim 38, wherein said candidate agent comprises an antibody capable of binding a MFP of a laminin 5 G4 and/or G5 domain or subdomain thereof.

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41. (Original) A method of evaluating the effect of a candidate SCC drug in a patient comprising the steps of:

- a) detecting the presence of an MFP associated with SCC in a tissue sample from a patient diagnosed with a SCC tumor prior to treatment with a candidate drug; and
- b) detecting the presence of a said MFP in a tissue sample from said patient following treatment with said candidate drug;

wherein a decrease in said MFP following treatment with said candidate drug indicates that said candidate drug is effective in treating said SCC in said patient.

42. (Original) A method according to Claim 41, wherein said candidate agent is selected from the group consisting of antibodies and fragments thereof, small molecules, polypeptides, and aptamers.

43. (Original) A method according to Claim 41, wherein said candidate agent comprises an antibody capable of binding a MFP of a laminin 5 G4 and/or G5 domain or subdomain thereof.

Amendments to the Figures:

The attached sheets of replacement formal drawings include changes to Figures 1A-D, 2A-J, 3A-N, 4, 5, 6, and 7. Replacement sheet 1/28, which includes Figures 1A and 1B, replaces the original Figures 1A-1B pages. Replacement sheet 2/28, which includes Figure 1C, replaces the original Figures 1C pages. Replacement sheet 3/28, which includes Figure 2A-1, replaces part of the original Figure 2A pages. Replacement sheet 4/28, which includes Figure 2A-2, replaces part of the original Figure 2A pages. Replacement sheet 5/28, which includes Figure 2B, replaces the original Figure 2B pages. Replacement sheet 6/28, which includes Figure 2C-1, replaces part of the original Figure 2C pages. Replacement sheet 7/28, which includes Figure 2C-2, replaces part of the original Figure 2C pages. Replacement sheet 8/28, which includes Figure 2C-3, replaces part of the original Figure 2C pages. Replacement sheet 9/28, which includes Figure 2C-4, replaces part of the original Figure 2C pages. Replacement sheet 10/28, which includes Figure 2D-1, replaces part of the original Figure 2D pages. Replacement sheet 11/28, which includes Figure 2D-2, replaces part of the original Figure 2D pages. Replacement sheet 12/28, which includes Figure 2E-1, replaces part of the original Figure 2E pages. Replacement sheet 13/28, which includes Figure 2E-2, replaces part of the original Figure 2E pages. Replacement sheet 14/28, which includes Figure 2F, replaces the original Figure 2F pages. Replacement sheet 15/28, which includes Figure 2G-1, replaces part of the original Figure 2G pages. Replacement sheet 16/28, which includes Figure 2G-2, replaces part of the original Figure 2G pages. Replacement sheet 17/28, which includes Figure 2H, replaces the original Figure 2H pages. Replacement sheet 18/28, which includes Figure 2I-1, replaces part of the original Figure 2I pages. Replacement sheet 19/28, which includes Figure 2I-2, replaces part of the original Figure 2I pages. Replacement sheet 20/28, which includes Figure 2I-3, replaces part of the original Figure 2I pages. Replacement sheet 21/28, which includes Figure 2J, replaces the original Figure 2J pages. Replacement sheet 22/28, which includes Figures 3A and 3B, replaces the original Figures 3A-3B pages. Replacement sheet 23/28, which includes Figures 3C, 3D, 3E, 3F, 3G, and 3H, replaces the original Figures 3C, 3D, 3E, 3F, 3G, and 3H pages. Replacement sheet 24/28, which includes Figures 3I, 3J, 3K, and 3L, replaces the original Figures 3I, 3J, 3K, and 3L pages. Replacement sheet 25/28, which includes Figures 3M and 3N, replaces the original Figures 3M and 3N pages. Replacement sheet 26/28, which includes Figure 4, replaces the original Figure 4 page. Replacement sheet 27/28, which includes Figure 5, replaces the original Figure 5 page. Replacement sheet 28/28, which includes Figures 6 and 7, replaces the original Figure 6 and 7 pages.